# Letters to the Editor

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### Research and the Internet: An E-Mail Survey of Sexual Orientation

The Internet is becoming a mainstream means of communication and has the potential to become an important medium for the conduct of public health survey research. In fact, the Internet is beginning to rival the telephone and postal service in desirability for the distribution of surveys.1 With 6.4 million households currently connected to the Internet in the United States, the methods for conducting electronic surveys (e-mail surveys) and the success of these methods are of growing interest to researchers.2,3 This letter therefore discusses the methods and sampling success of what may be the first attempt to sample subjects randomly from Internet newsgroups. The study's purpose was to examine the properties of a new measure of sexual orientation.

Kiesler and Sproull's<sup>4</sup> method for sampling users connected to an "Intranet"

served as the foundation of the sampling plan. All postings to two Internet newsgroups (alt.politics.homosexuality and talk.politics.medicine) were collected over a 2-week period and the e-mail addresses (attached to each posting) enumerated. These newsgroups were chosen to produce a sample with a broad range of sexual orientations. From the enumerated list, 360 subjects were randomly sampled and were sent e-mail informing them of their selection. The e-mail survey was sent to them upon obtaining their consent to participate.

Of the 360 subjects selected, 9 could not be contacted. Of the 351 subjects contacted, 66.1% requested an e-mail survey, and 56.4% completed it. The e-mail survey sampling process was considered successful: it achieved a response rate within the range of response rates often obtained in mail and telephone surveys of similar subjects.<sup>5,6</sup> The Internet survey methods discussed here may therefore prove advantageous to other investigators wanting to collect research data. However, the respondents were predominantly young, male, White, and highly educated and were not representative of the general population of the United States. This was partly due to the type of participants attracted to the newsgroups sampled and the demographic characteristics of Internet users in general.

Despite this demographic bias, this study has demonstrated the ability of an e-mail survey to reach a relatively rare, hidden, and geographically dispersed population (in this case, homosexuals and bisexuals). Until the Internet becomes accessible to the general population, its research use may be limited to the study of populations who are likewise difficult to identify and for whom the sampling biases imposed by the Internet are considered tolerable. However, many groups of

interest to public health researchers may fit such requirements, including people with rare diseases and people with specific health behaviors or interests. Such groups are rapidly forming accessible electronic communities.

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## The Maryland Ban on the Sale of Assault Pistols and High-Capacity Magazines: Estimating the Impact in Baltimore

A Maryland law banning the sale of assault pistols and high-capacity ammunition magazines took effect in June 1994.<sup>1</sup> Other states, including California,<sup>2</sup> New

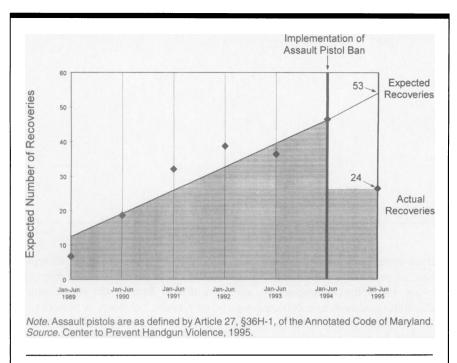


FIGURE 1—Expected number of assault pistol recoveries by the Baltimore City Police Department, 1989 through 1995.

Jersey<sup>3</sup> and Connecticut,<sup>4</sup> and the federal government have enacted bans on the sale and possession of various assault weapons.<sup>5</sup> We assessed the initial impact of the Maryland law on the use of assault pistols in association with criminal activity and found that fewer assault pistols than would have been expected without the ban were used in crime as measured by the number of assault pistols recovered by the Baltimore City Police Department.

To conduct the analysis, we compared the actual number of assault pistols recovered in the first 6 months of 1995 with an estimate of the expected number of recoveries had the ban not been implemented. The predicted value for assault pistol recoveries was estimated with simple linear regression incorporating three variables into the model: (1) the actual number of assault pistols recovered in the first 6 months of each year from 1989 through 1995, (2) the year the guns were recovered, and (3) a variable controlling for implementation of the ban.

Substituting assault pistols as a percentage of all recovered guns for counts of assault pistols recovered did not alter our basic conclusions.

Following relatively unabated annual increases, assault pistol recoveries by the Baltimore City Police Department increased from 7 pistols in 1989 (0.5% [7/1391] of all recovered firearms) to 44

pistols in 1994 (2.5% [44/1726] of all recovered guns). In the first 6 months of 1995, following implementation of the Maryland law, assault pistol recoveries fell by 44.5% from the preceding year to 24 guns (1.45% [24/1658] of all weapons recovered; Figure 1).

Interpretation of the regression results indicates that the expected increase in assault pistol recoveries from the first half of one year to the first half of the next was 6.77 guns (t = 5.25, P = .0063). In 1995, without the ban, the Baltimore City Police Department would have been expected to recover 52.5 assault pistols, 28.5 guns more than were actually recovered (t = -3.87, P = .0180). In other words, in the first 6 months of 1995, the Baltimore City Police Department recovered 55% fewer assault pistols than would have been expected had there been no ban.

The results of this analysis should be read with some caution. First, the analysis trades off the benefits of evaluating an intervention shortly after implementation (e.g., limiting the likelihood that some other event accounts for the findings) with the disadvantage of not having several postintervention data points. Second, the data are from the city of Baltimore and may not be representative of the state as a whole. Finally, a federal ban on the manufacture and sale of assault weapons

took effect within months of the Maryland law and may be responsible for the observed effect. However, the federal law allows for the sale of assault weapons manufactured prior to the effective date of the law: the Maryland ban does not and, therefore, is likely to affect the availability of these weapons more quickly.

From 1990 through 1995, a disproportionate share (4.25%) of all guns traced by the Bureau of Alcohol, Tobacco and Firearms were assault pistols. Our data provide a strong, early indication that the Maryland assault pistol ban is working—as a result of the ban, fewer assault pistols are being used by criminals. On the basis of the results of this analysis, efforts to repeal or weaken similar state or federal statutes should be suspended.

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- 1. Md Ann Code, art 27, §36H-1 through §36H-6.
- 2. Cal Penal Code, §12275 et seq (West 1992).
- 3. New Jersey Crim Justice Code, §2C:39-1 to §39-15 (1994).
- 4. 1994 Conn Acts 93-306, §2.
- 5. 18 CFR §922 (1994).
- Information from Center to Prevent Handgun Violence, 1995. Based on firearms trace data obtained from the Bureau of Alcohol, Tobacco and Firearms, Washington, DC.

### Differences in the Reported Prevalence of Adolescents Who Have Never Smoked

Cigarette smoking has been identified as the single most significant source of preventable morbidity and premature death. Since most adult smokers first